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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of:

Mark D. Roberts

Appl. No. 09/878,923
Confirmation No. 2854

Filed: June 13, 2001

For: SYSTEM AND METHOD FOR
APPLYING DELAY CODES TO
PULSE TRAIN SIGNALS

Art Unit: 2634

Examiner: (Unassigned)

Atty. Docket No.: 28549-165405

Customer No.:



26694

PATENT TRADEMARK OFFICE

SUBMISSION OF SUBSTITUTE DRAWINGS

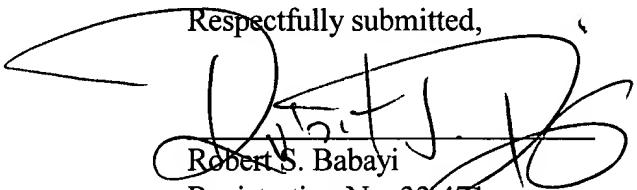
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith are 12 sheets of formal drawings containing Figures 1-10.

Date: September 7, 2001

Respectfully submitted,


Robert S. Babayi

Registration No. 33,471

VENABLE

P.O. Box 34385

Washington, D.C. 20043-9998

Telephone: (202) 962-4800

Telefax: (202) 962-8300

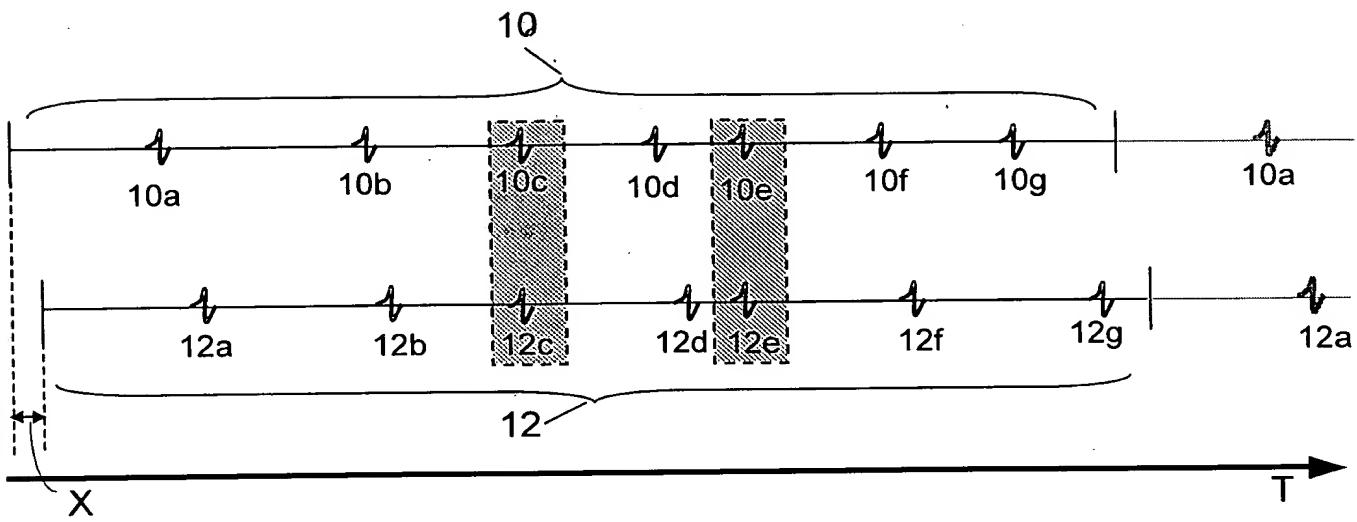


FIG. 1

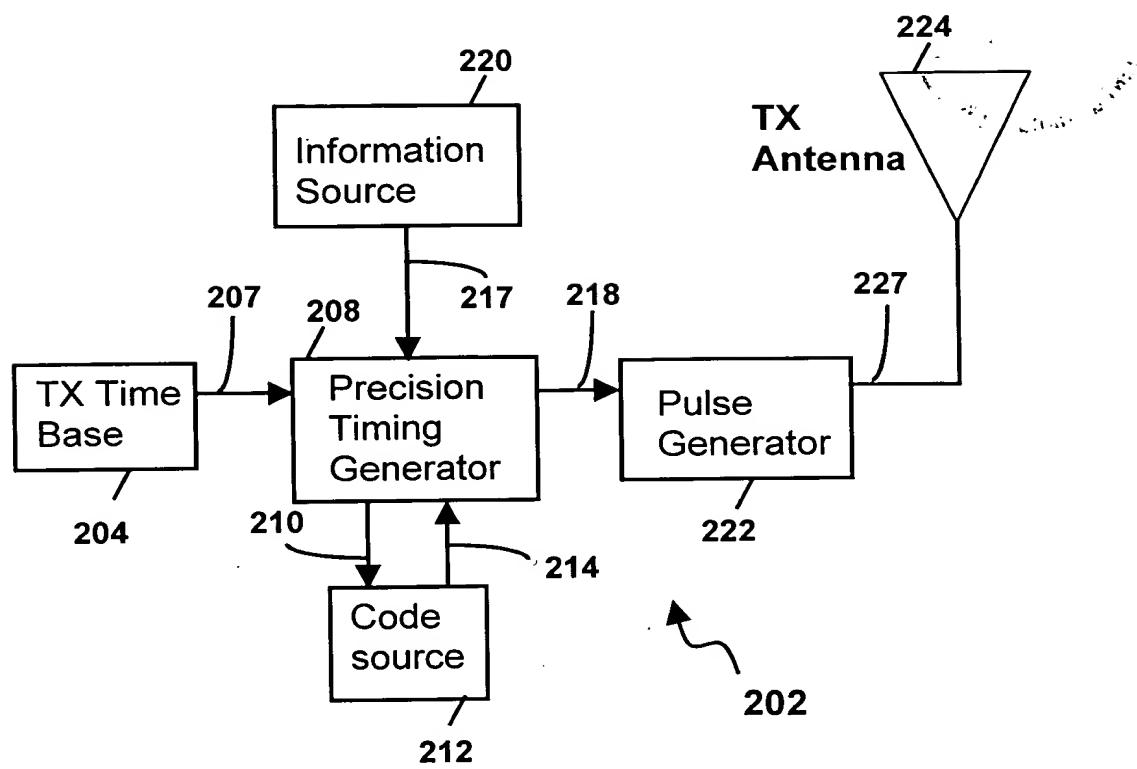


FIG. 2

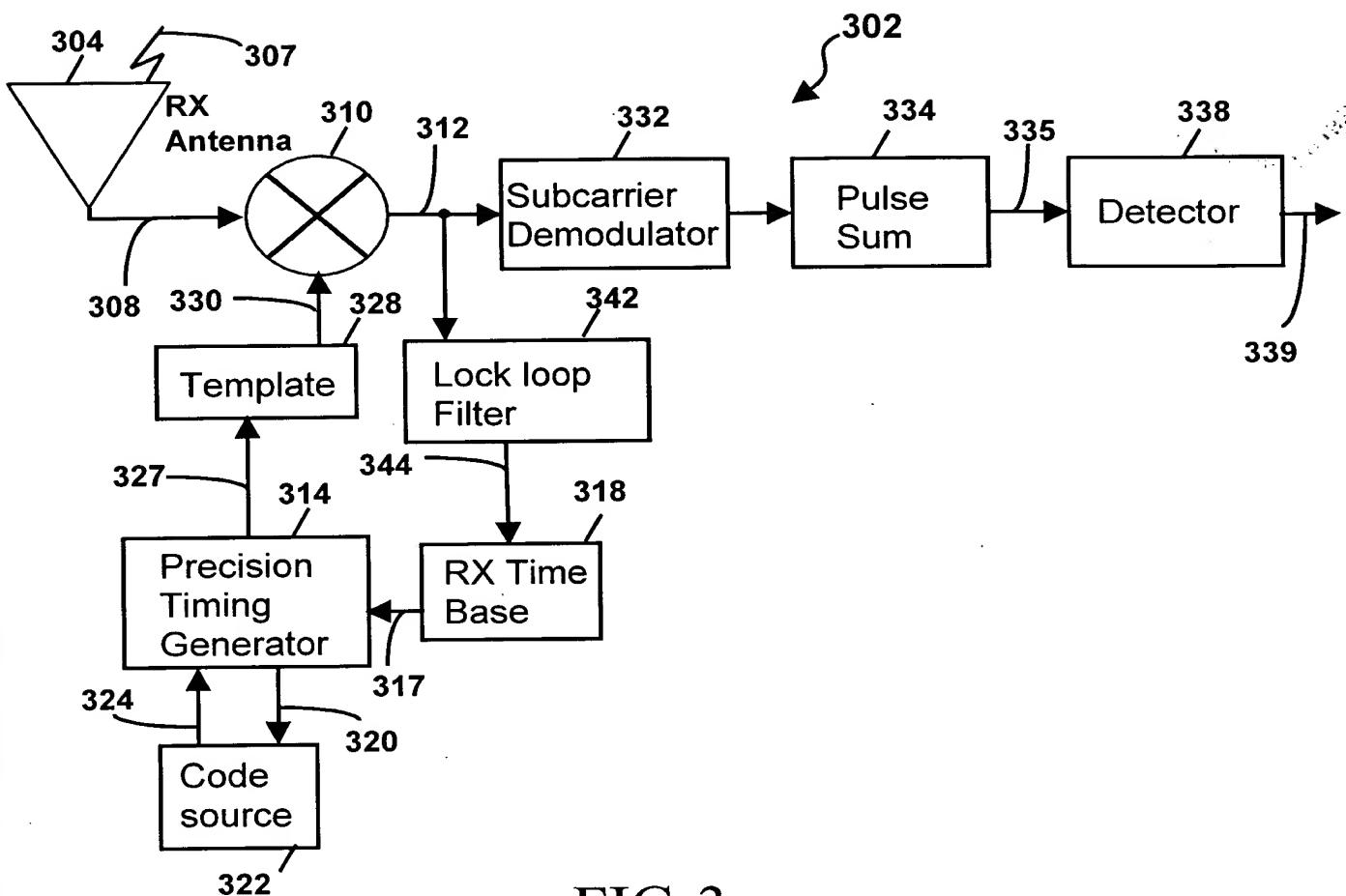


FIG. 3

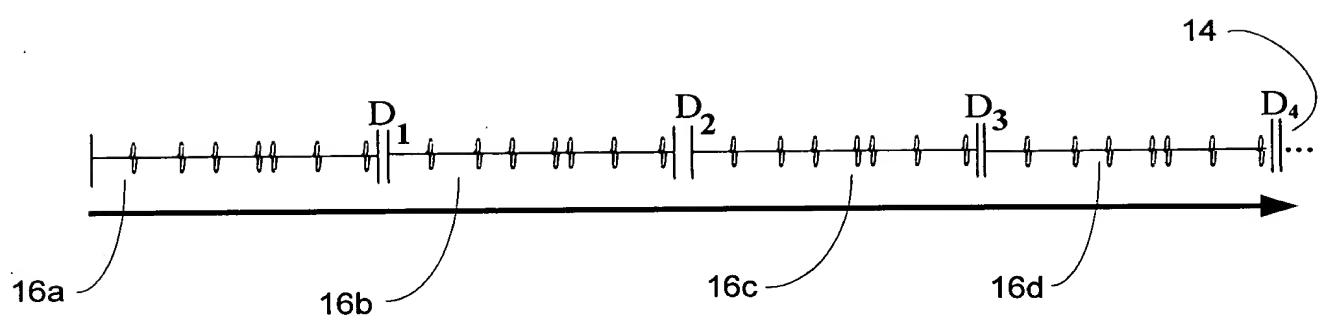


FIG. 4a

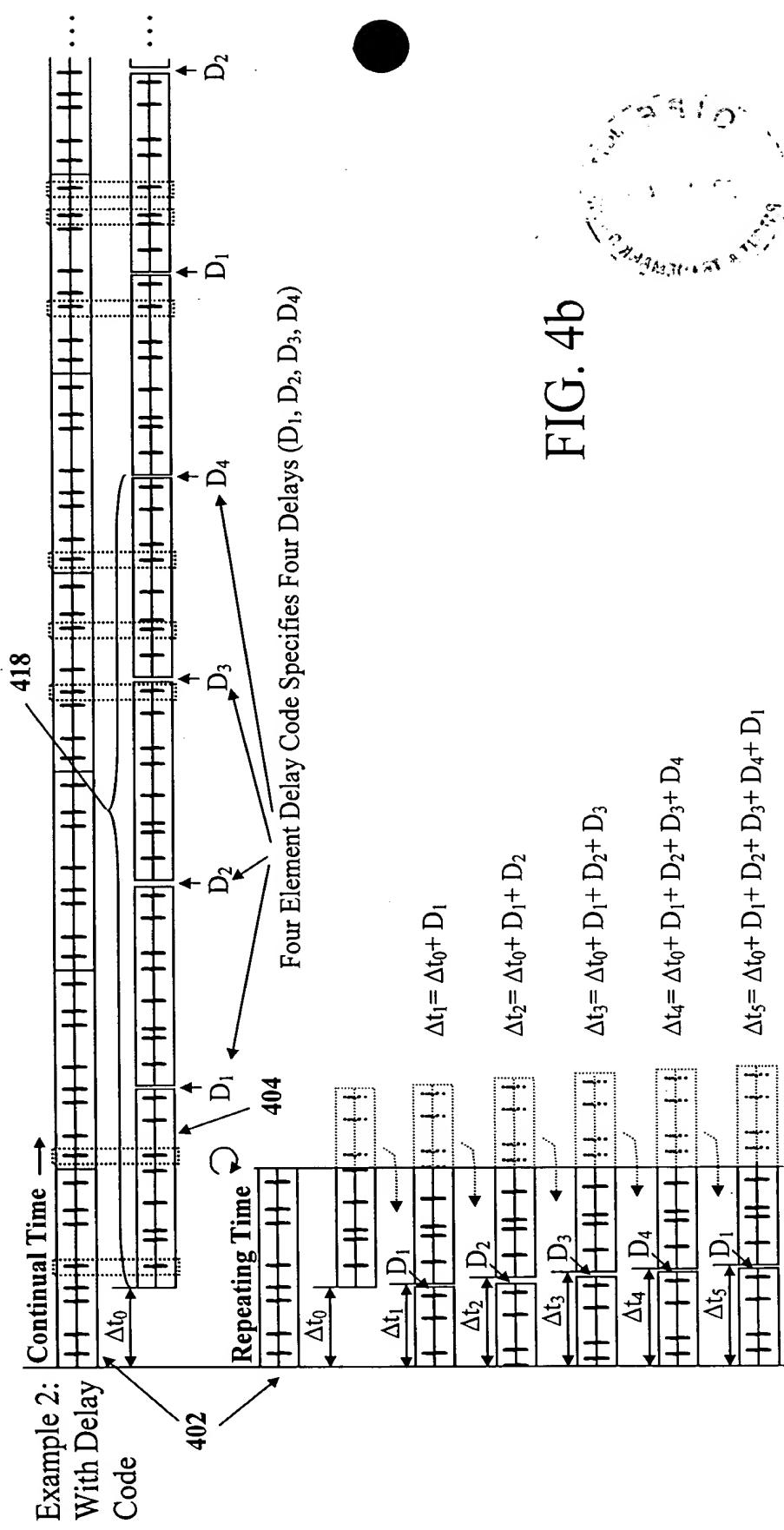
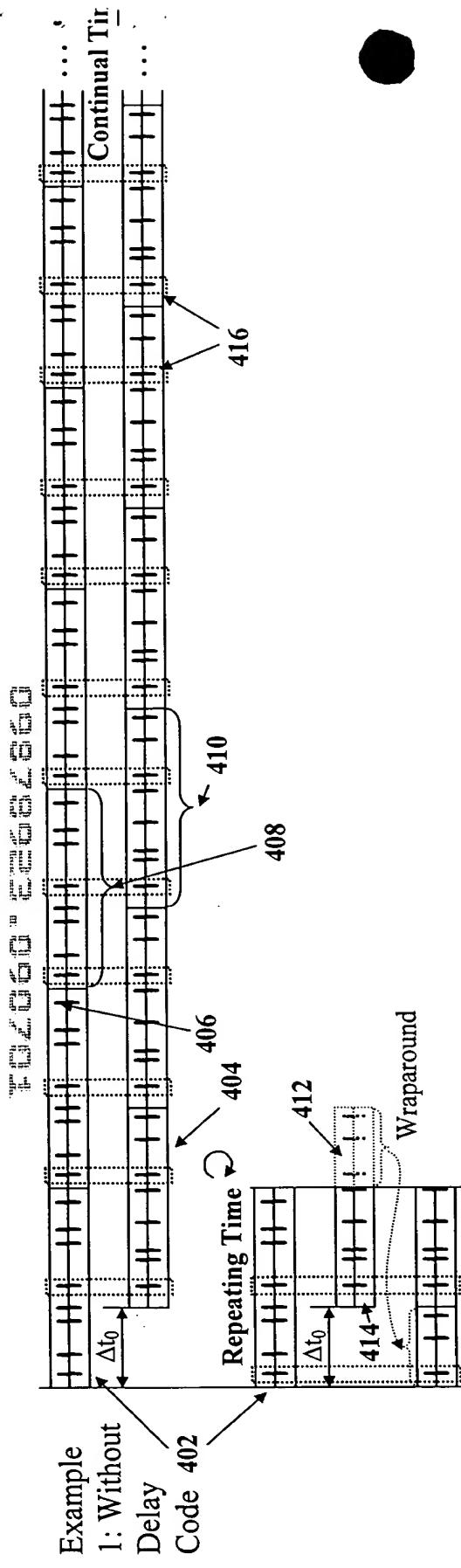
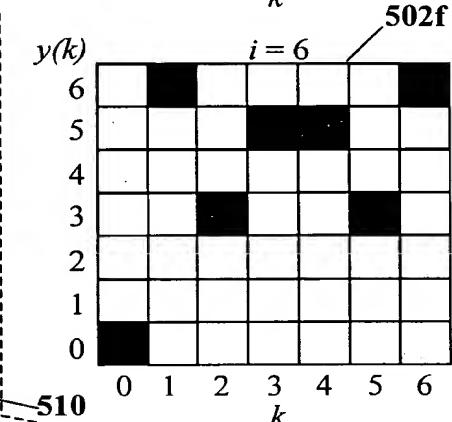
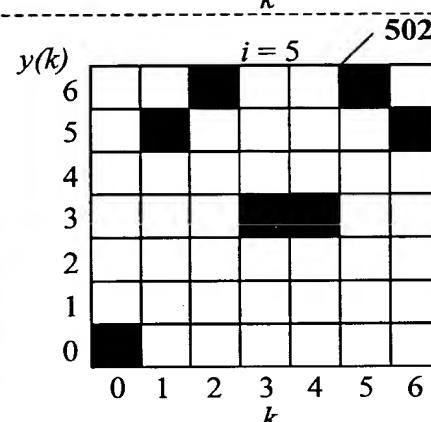
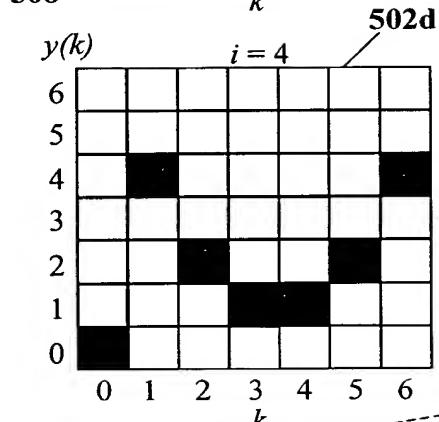
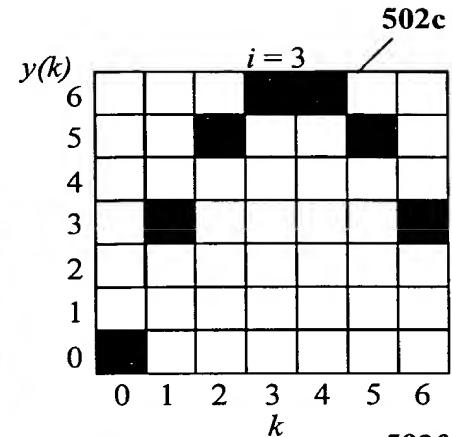
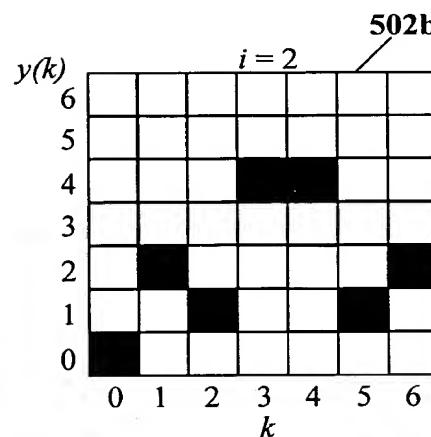
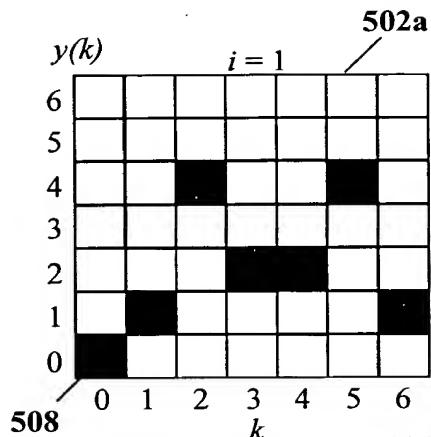


FIG. 4b

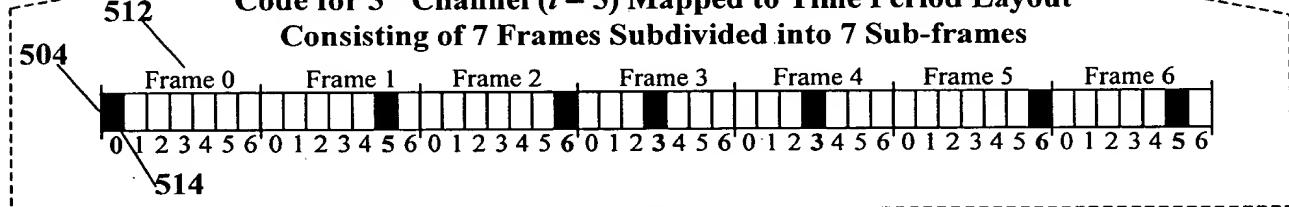
Quadratic Congruential Codes

$$y(k) = i k^2 \bmod 7$$

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**Code for 5th Channel (*i* = 5) Mapped to Time Period Layout
Consisting of 7 Frames Subdivided into 7 Sub-frames**



Time Period Layout Repeats Such that Preceding Time Period, Current Time Period, and Following Time Period, Etc. are Contiguous

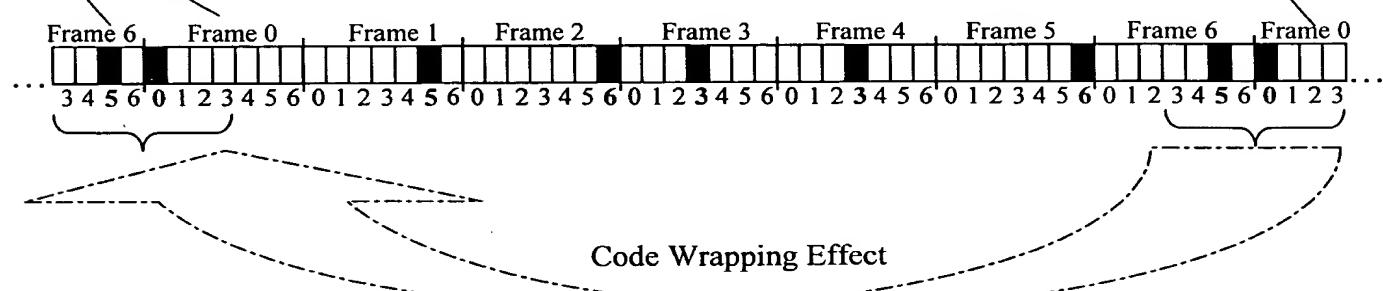


FIG. 5

Cross-correlation of 5th and 6th Codes (Time Offsets in 1 Subframe Increments)

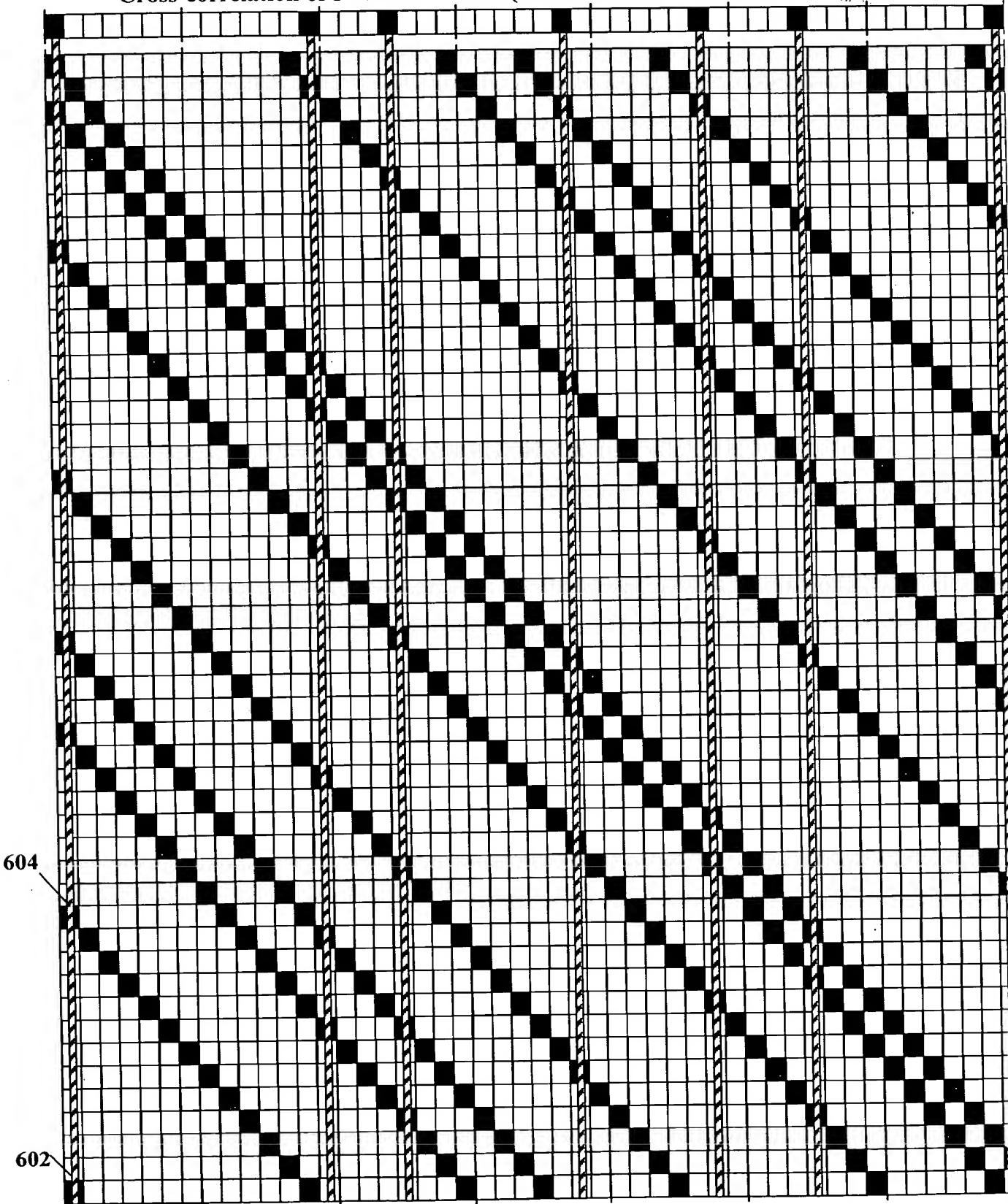


FIG. 6

Cross-correlation of 5th and 6th Codes

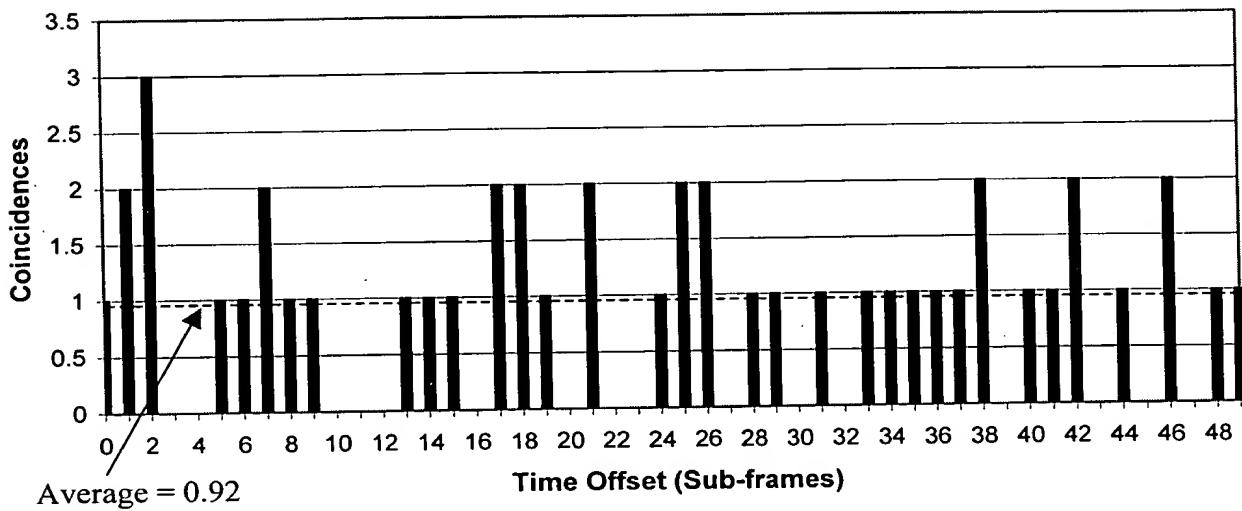


FIG. 7

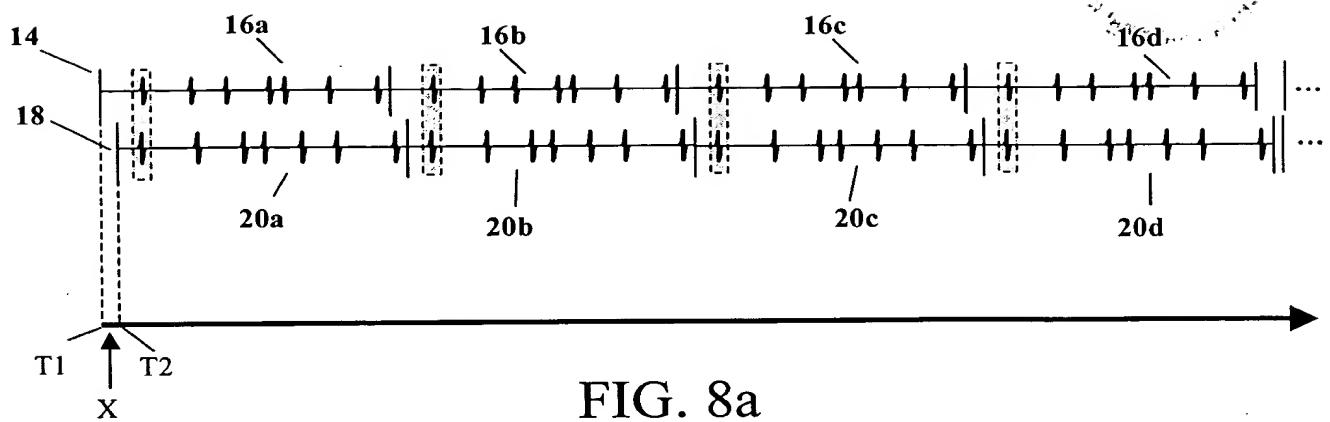


FIG. 8a

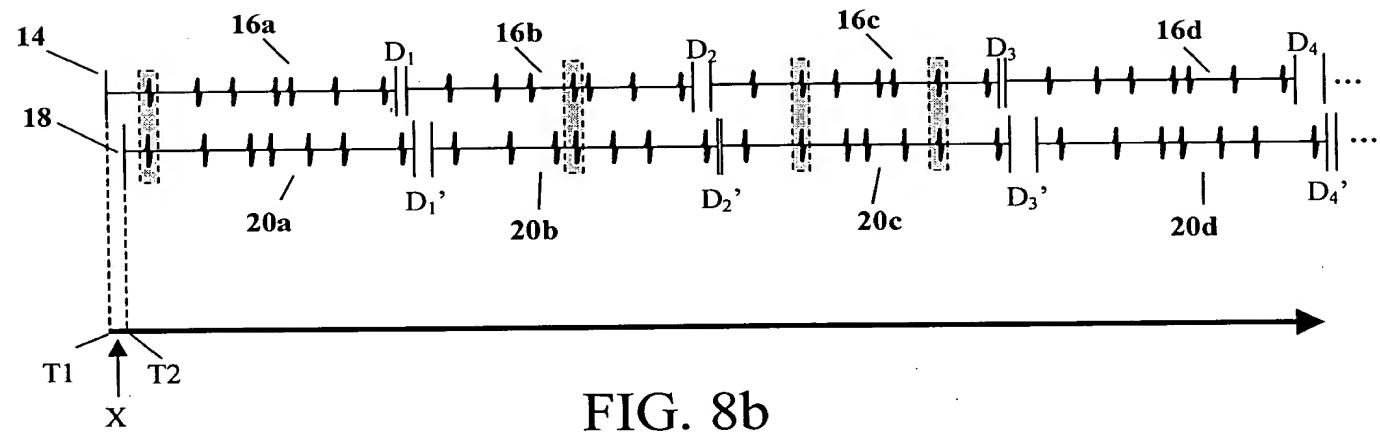


FIG. 8b

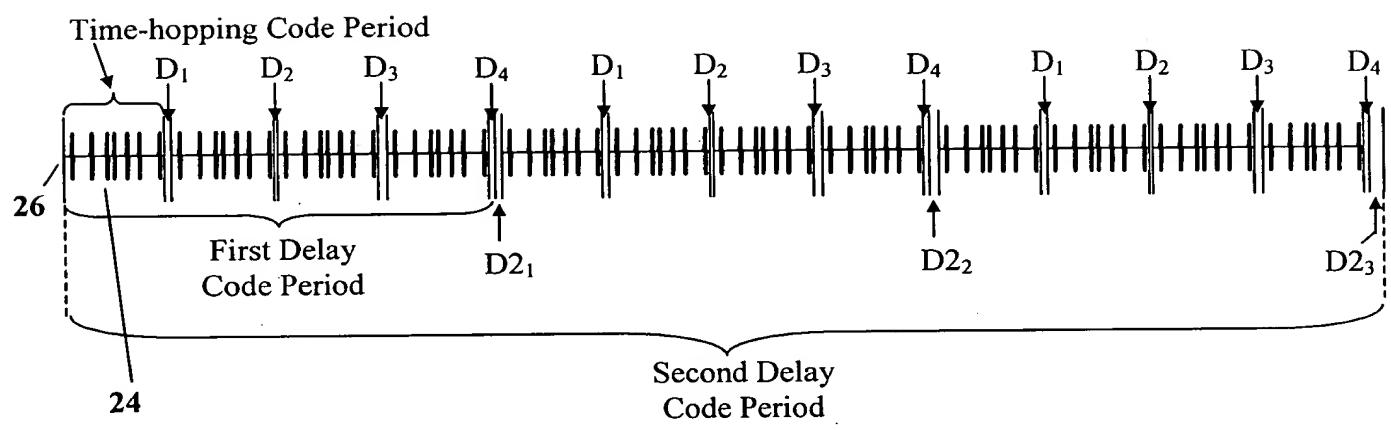


FIG. 9

FIG. 10

